

SOUTHWEST FISHERIES SCIENCE CENTER (SWFSC)
THIRD QUARTER REPORT-FY 2003
For the Period April 1, 2003 - June 30, 2003

SUBMITTED BY: Norman Bartoo, Acting Director, Fisheries Resources Division.

Title of Accomplishment or Milestone: North Pacific albacore workshop and stock assessment.

Current Status of Accomplishment or Milestone: A formal assessment based on a VPA model was completed and presented for review at the *Eighteenth North Pacific Albacore Workshop* held at the SWFSC in December 2002.

Background Information: A formal assessment of the albacore population of the North Pacific Ocean was conducted and subsequently, methods and results were presented at the most recent Workshop held at the SWFSC in December 2002. This assessment served as one of the first formal population-based analyses concerning the status of the stock at large.

Purpose of Activity: The objectives of the assessment-related research are to improve the current understanding of the dynamics of the albacore population and to provide accurate estimates of important fishery parameters needed to manage the stock in sustainable terms, including historical and current estimates of adult biomass, spawning stock biomass, recruitment, and fishing mortality rates.

Description of Accomplishment and Significant Results: Results from the stock assessment and Workshop discussion resulted in estimates of current and projected levels of total population biomass and spawning stock biomass, as well as for the reference point-related calculations and uncertainty surrounding assumed recruitment levels.

Significance of Accomplishment: The significance of the research is threefold: it increases the current understanding of albacore population dynamics, it helps the understanding of assessment methods used in fishery science and lastly, it promotes a cooperative, international-based working environment for future assessments that concern a highly mobile fish population that inhabits vast areas of the Pacific Ocean.

Problems: The VPA-based assessment was extensively reviewed and subsequently, supported through Workshop consensus. However, additional work is still to be done preparing data sets for examinations using a fully-integrated statistical modeling approach, such as MULTIFAN-CL.

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